

CLAIMS:

What is claimed is:

- 1 1. A method of conveying information about a Voice Over Internet Protocol (VoIP)
2 network to a user comprising:
3 discovering a plurality of nodes on the VoIP network, the plurality of nodes including a
4 plurality of media aggregation managers that provide application/protocol specific
5 multiplexing/demultiplexing of media traffic onto a preallocated reservation
6 protocol session; and
7 graphically depicting representations of the plurality of nodes and their interconnections
8 on a network map, wherein the representations of the plurality of media
9 aggregation managers are visually distinguishable from the remainder of the
10 plurality of nodes.
- 1 2. The method of claim 1, further comprising displaying a plurality of physical paths that
2 are available for exchanging media packets between a selected pair of media aggregation
3 managers of the plurality of media aggregation managers.
- 1 3. The method of claim 2, wherein the plurality of physical paths are prioritized in terms of
2 their relative desirability for serving as the path over which media packets will be
3 transferred between the first and second media aggregation managers.
- 1 4. A method of allowing a user to interactively explore how changes in path selection
2 between media aggregation managers affects projected link utilization in a network
3 comprising:

4 displaying graphical representations of a first media aggregation manager and a second
5 media aggregation manager, the first and second media aggregation managers
6 serving as reservation session aggregation points between a first user community
7 and a second user community and having a plurality of physical paths through
8 which media packets may be exchanged by way of one or more packet forwarding
9 devices;
10 displaying a first projected link utilization based upon an indication that a first path of the
11 plurality of physical paths will be used to convey media packets between the first
12 and second media aggregation managers; and
13 displaying a second projected link utilization based upon an indication that a second path
14 of the plurality of physical paths will be used to convey media packets between
15 the first and second media aggregation managers.

1 5. The method of claim 2, further comprising overlaying a selected path of the plurality of
2 physical paths onto existing bandwidth allocations to determine a projected link
3 utilization associated with the selected path.

1 6. A method comprising:
2 in response to a discovery request, discovering nodes on a network;
3 identifying and graphically displaying the nodes and their interconnections on a map;
4 receiving inputs including a first node, a second node and a projected bandwidth traffic
5 between the first node and the second node; and
6 displaying a projected bandwidth utilization for the nodes that accounts for the increase
7 in bandwidth utilization caused by the projected bandwidth traffic for a schedule.

6 displaying a prioritized plurality of paths between the first media aggregation manager
7 and the second media aggregation manager that satisfy the projected utilization;
8 and
9 receiving a fourth input indicating a selected path of the plurality of paths.

1 13. The method of Claim 12 further comprising a control initializing an allocation of
2 bandwidth between the first media aggregation manager and the second media
3 aggregation manager.

1 14. The method of claim 13 wherein the allocation of bandwidth comprises a provisioning of
2 plurality of routers between the first media aggregation manager and the second media
3 aggregation manager.

1 15. The method of claim 14 wherein the provisioning of the plurality of routers includes
2 instructions that force media to route through the plurality of routers when being
3 communicated from a first community of residents utilizing the first media aggregation
4 manager to a second community of residents utilizing the second media aggregation
5 manager.

1 16. The Method of Claim 12 further comprising an analysis control for receiving an input
2 indicating the initiation of analysis of the first path.

1 17. The method of Claim 12 further comprising:
2 receiving a fifth input indicating a node on the selected path; and
3 displaying a schedule projecting bandwidth utilization for the node.

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1 23. The machine-readable medium of claim 22, wherein the plurality of physical paths are
2 prioritized in terms of their relative desirability for serving as the path over which media
3 packets will be transferred between the first and second media aggregation managers.

1 24. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 display graphical representations of a first media aggregation manager and a second
4 media aggregation manager, the first and second media aggregation managers
5 serving as reservation session aggregation points between a first user community
6 and a second user community and having a plurality of physical paths through
7 which media packets may be exchanged by way of one or more packet forwarding
8 devices;
9 display a first projected link utilization based upon an indication that a first path of the
10 plurality of physical paths will be used to convey media packets between the first
11 and second media aggregation managers; and
12 display a second projected link utilization based upon an indication that a second path of
13 the plurality of physical paths will be used to convey media packets between the
14 first and second media aggregation managers.

1 25. The machine-readable medium method of claim 24, further comprising instructions to
2 overlay a selected path of the plurality of physical paths onto existing bandwidth
3 allocations to determine a projected link utilization associated with the selected path.

1 26. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 discover nodes on a network in response to a discovery request;

4 identify and graphically display the nodes and their interconnections on a map;
5 receive inputs including a first node, a second node and an input means for indicating a
6 projected bandwidth traffic requirements between the first node and the second
7 node; and
8 display the projected bandwidth traffic requirements for the nodes.

1 27. The machine-readable medium of claim 26 wherein the nodes include at least one media
2 aggregation manager.

1 28. The machine-readable medium of claim 26 further comprising instructions to display a
2 plurality of paths between the first node and the second node.

1 29. The machine-readable medium of claim 28 wherein the plurality of paths between the
2 first node and the second node are prioritized by a criteria.

1 30. A machine-readable medium having stored thereon data representing sequences of
2 instructions which, when executed by a processor, cause the processor to:
3 display a first portion that graphically depicts and identifies a plurality of nodes on a
4 network, wherein the plurality of nodes includes a plurality of media aggregation
5 managers that provide application/protocol specific multiplexing/demultiplexing
6 of media traffic onto a preallocated reservation protocol session, and wherein the
7 plurality of media aggregation managers are distinguishable from other nodes on
8 the network.

1 31. The machine-readable medium of claim 30 further comprising instructions to display a
2 table that identifies characteristics of a selected node.

receive a fifth input indicating a node on the selected path; and

display a schedule projecting bandwidth utilization for the node.

38. A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to:

substantially simultaneously provision a plurality of routers to force a media to travel from a first media aggregation manager through the plurality of routers and to a second media aggregation manager.

39. A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a processor, cause the processor to:

provision a plurality of routers according to a path selected by a user over which reservation protocol session packets are forced to travel.

40. The machine-readable medium of claim 39 wherein the path includes an endpoint wherein the endpoint is a media aggregation manager.